

```
--4. Staff Performance Overview--
Select
    lib.LibraryName,
    s.FullName AS StaffName,
    s.Position,
    Count(b.BookID) AS BooksManaged
FROM Staff s
JOIN Library lib ON s.LibraryID = lib.LibraryID
LEFT JOIN Book b ON lib.LibraryID = b.LibraryID
GROUP BY lib.LibraryName, s.FullName, s.Position;

---5- Book Popularity Report---
Select
    b.Title,
    b.ISBN,
    b.Genre,
    Count(l.LoanID) AS TotalLoans,
    AVG(r.Rating) AS AvgRating
FROM Book b
JOIN Loan l ON b.BookID = l.BookID
```

100 %

Results Messages

	LibraryName	StaffName	Position	BooksManaged
1	Islamic Library	Bader AL-Badri	Librarian	2
2	Math Library	Zahrah AL-Saidi	Manager	6
3	Central Library	Ahmed Al-Hinai	Librarian	6
4	Science Library	Mona Al-Kindi	Assistant	6

PROJECT2 FINISH SQL - ALMAZIDI.Project2 (ALMAZIDI\moseam (72)) - Microsoft SQL Server Management Studio

```

--> Member Engagement Metrics---->
SELECT
    m.MemberID,
    m.FullName,
    l.LoanID,
    AS TotalBooksBorrowed,
    SUM(CASE WHEN l.Status IN ('Issued', 'Overdue') THEN 1 ELSE 0 END) AS BooksCurrentlyOnLoan,
    COUNT(l.FineAmount) AS TotalFinesPaid,
    AVG(l.Rating) AS AverageRatingGiven
FROM Members m
JOIN Loan l ON m.MemberID = l.MemberID
LEFT JOIN Payment p ON l.LoanID = p.LoanID
LEFT JOIN Book b ON l.BookID = b.BookID
GROUP BY m.MemberID, m.FullName
HAVING COUNT(l.LoanID) >> 1
ORDER BY m.MemberID

--> Library Performance Comparison---->
SELECT
    L.LibraryName,
    Count(b.BookID) AS TotalBooks,
    Count(DISTINCT ln.MemberID) AS ActiveMembers,
    ISNULL(SUM(p.Amount), 0) AS TotalRevenue,
    CAST(
        COUNT(b.BookID) * 1.0 /

```

	MemberID	FullName	TotalBooksBorrowed	BooksCurrentlyOnLoan	TotalFinesPaid	AverageRatingGiven
1	1	Fatma Al-Manari	2	0	5.00	5
2	2	Salem Al-Bader	2	2	4.00	4
3	3	Aisha Al-Rashid	2	1	3.00	6
4	4	Basma Al-Rahy	2	1	5.00	7
5	5	Mosa Al-Manari	2	2	0.00	NULL
6	6	Hamed Al-Bulushi	1	0	0.00	NULL
7	7	Jokha Al-Salmi	1	1	0.00	NULL
8	8	Houda Al-Rahi	1	1	0.00	NULL
9	9	Omar Al-Senari	1	0	0.00	NULL
10	10	Hassan Al-Badi	1	1	0.00	NULL

Query executed successfully.

ALMAZIDI (15.0 RTM) | ALMAZIDI\moseam (72) | Project2 | 00:00:00 | 10 rows

Ready Rainy days ahead 68°F

Ln 265 Col 1 Ch 1 INS

9:33 AM 1/1/2026

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PROJECT2 FINISH SQL - ALMAZIDI.Project2 (ALMAZIDI\moseam (72)) - Microsoft SQL Server Management Studio

```

--> Book Reading History---->
SELECT
    m.MemberID,
    m.FullName AS MemberName,
    b.BookID,
    b.Title AS BookTitle,
    l.LoanDate,
    l.ReturnDate,
    r.Rating,
    r.Comment
FROM Members m
JOIN Loan l ON m.MemberID = l.MemberID
JOIN Book b ON l.BookID = b.BookID
LEFT JOIN Review r ON b.BookID = r.BookID
GROUP BY m.MemberID, b.BookID, b.Title, b.ISBN, b.Genre
HAVING COUNT(l.LoanID) >> 3

--> Member Reading History---->
SELECT
    m.FullName AS MemberName,
    b.BookID,
    b.Title AS BookTitle,
    l.LoanDate,
    l.ReturnDate,
    r.Rating,
    r.Comment
FROM Members m
JOIN Loan l ON m.MemberID = l.MemberID
JOIN Book b ON l.BookID = b.BookID
LEFT JOIN Review r ON m.MemberID = r.MemberID AND b.BookID = r.BookID
ORDER BY m.FullName, l.LoanDate

--> Revenue Analysis by Genre--->
SELECT
    b.Genre,
    COUNT(l.LoanID) AS TotalLoans,
    SUM(p.Amount) AS TotalFines,
    AVG(p.Amount) AS AvgFinePerLoan

```

	MemberName	BookTitle	LoanDate	ReturnDate	Rating	Comment
1	Basma AL-Rahy	Introduction to Algorithms	2024-01-12	NULL	7	Very useful for clean coding practices
2	Basma AL-Rahy	Cloud Computing	2024-02-20	2024-03-05	NULL	NULL
3	Aisha Al-Rashid	Physics Basics	2024-01-15	2024-01-24	6	Excellent reference book
4	Aisha Al-Rashid	Machine Learning Guide	2024-01-18	2024-01-25	NULL	NULL
5	Fatma Al-Manari	Data Structures	2024-01-05	2024-01-18	8	Great for learning about algorithmic thinking
6	Fatma Al-Manari	Web Development Basics	2024-02-12	2024-03-20	NULL	NULL
7	Hamed Al-Bulushi	Artificial Intelligence	2024-02-01	2024-02-14	NULL	NULL
8	Hassan Al-Badi	Software Engineering	2024-02-10	NULL	NULL	NULL
9	Houda Al-Rahi	Computer Networks	2024-02-08	NULL	NULL	NULL
10	Jokha Al-Salmi	Discrete Mathematics	2024-02-05	NULL	NULL	NULL
11	Mosa Al-Manari	Operating System Concepts	2024-01-15	NULL	NULL	NULL
12	Mosa Al-Manari	Digital Electronics	2024-02-22	NULL	NULL	NULL
13	Omar Al-Senari	Data Science Handbook	2024-02-05	2024-02-21	NULL	NULL
14	Salem Al-Balushi	Object-Oriented Programming	2024-01-07	NULL	4	Very useful for clean coding practices
15	Salem Al-Balushi	Cyber Security Essentials	2024-02-15	NULL	NULL	NULL

Query executed successfully.

ALMAZIDI (15.0 RTM) | ALMAZIDI\moseam (72) | Project2 | 00:00:00 | 15 rows

Ready Rainy days ahead 68°F

Ln 226 Col 1 Ch 1 INS

9:36 AM 1/1/2026

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The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'ALMAZDI\Project2' (15.0.2000.5) on 'ALMAZDI\mozam'. The main window displays a query results grid and a properties pane.

**Properties**

Current connection parameters	
Connection status	Open
Elapsed time	00:00:00.031
Finish time	1/1/2026 9:37:16 AM
Name	ALMAZDI
Rows returned	7
Start time	1/1/2026 9:37:16 AM
State	Open
Collation	Latin1_General_CI_AS
Connection name	ALMAZDI (ALMAZDI\mozam)
Connection Details	
Connection elapsed time	00:00:00.031
Connection encryption	Not encrypted
Connection finish time	1/1/2026 9:37:16 AM
Connection rows returned	7
Connection start time	1/1/2026 9:37:16 AM
Connection state	Open
Display name	ALMAZDI
Login name	ALMAZDI\mozam
Server name	ALMAZDI
Server version	15.0.2000
Session Tracing ID	
SPID	72

**Results**

Genre	TotalLoans	TotalFees	AvgFeePerLoan
Data Science	1	0.00	0.000000
Electronics	1	0.00	0.000000
Mathematics	1	0.00	0.000000
Programming	3	4.00	1.333333
Science	1	3.00	3.000000
Security	1	0.00	0.000000
Technology	7	10.00	1.428571

**Status Bar**

Ready  
GPFS Mostly sunny  
ALMAZDI (15.0 RTM) ALMAZDI\mozam (72) Project2 00:00:00 7 Rows  
Ln 237 Col 1 Ch 1 HS  
9:37 AM 1/1/2026

10

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'PROJECT2.FINISH.SQL.AZID0/mozam (72)'.

The left pane displays the Object Explorer, showing the database structure including 'AlMAZIDI' and 'Project2' databases.

The main pane contains a query window titled 'SQLQuery1.sql - A-ZID0/mozam (70)'. The query performs two analyses:

- Library Performance Comparison:** This part of the query uses a Common Table Expression (CTE) to calculate average books per member for each library. It includes a SELECT statement with a GROUP BY clause for 'L.LibraryName'.
- High-Value Books Analysis:** This part of the query uses an ALTER TABLE statement to add a 'Price' column to the 'Books' table, defined as a DECIMAL(10,2). It then performs a SELECT query to list books by title along with their total books, active members, total revenue, and average books per member.

The results grid shows the following data:

LibraryName	TotalBooks	ActiveMembers	TotalRevenue	AvgBooksPerMember
Main Library	2	2	0.00	1.00
Math Library	6	4	5.00	1.50
Central Library	6	4	5.00	1.50
Science Library	6	3	3.00	2.00

The status bar at the bottom shows 'Query executed successfully.' and the session details: 'ALMAZIDI (15.0 RTM) ALMAZIDI/mozam (72) Project2 00:00:00 4 rows'.

The right pane displays the 'Properties' window for the current connection, showing details like connection name, elapsed time, and session tracing ID.